

ARMY GROUND RISK-MANAGEMENT PUBLICATION COUNTERMEASURE

VOL 19 NO 4

<http://safety.army.mil>

APRIL 1998



Training to standard is key link in saving lives

To win on the modern battlefield, we must continue to train to strict standards, even when faced with reduced budgets and subsequent downsizing of our military.

Soldiers must be trained to established standards and held responsible for their technical and tactical competence. Leaders must

be ready, willing, and able to enforce those standards. Training must be realistic and professionally done with achievable purposes and goals.

Soldiers who aren't trained to standard get hurt, or worse—killed. Training to established standards produces more skillful, more disciplined, and safer soldiers.



Far too often, driver training is taken for granted. Most young soldiers have been driving for several years before they enter the Army, and it's not unusual to take their driving skills for granted. However, AMVs are not the standard equipment found in America's driveways. It takes specialized training to keep the Army's vehicles rolling safely.

—BG Burt S. Tackaberry, CG, U.S. Army Safety Center

DISTRIBUTION STATEMENT

Approved for public release;
Distribution Unlimited

DTIC QUALITY INSPECTED 3

19980430 055

The director's corner

A key part of the Safety Center's mission is to assist commanders, leaders, and managers in protecting the Total Force. In order to accomplish this task, Army values must be reinforced at all levels to enhance readiness through a full dimensional risk management-based Army Safety Program.

Leaders are responsible for the professional development of soldiers for the 21st century Army. They must be knowledgeable in training management, supply, and logistics, as well as being technical and tactical experts in all METL-related tasks.

Perhaps more importantly, leaders must be leaders of character, leaders who internalize Army values and take topnotch care of the soldiers and families under their supervision.

The importance of values is not new. Commanders have always understood that values are the heart and soul of our great Army. The Army focuses effort on the training of Army values, training that is absolutely essential to our profession of arms.

General Dennis J. Reimer, our Army Chief of Staff, recently approved a new acronym, LDRSHIP (pronounced leadership), using the first letter of each value. The Army's seven core values are: Loyalty, Duty, Respect, Selfless service, Honor, Integrity, and Personal courage.

Young officers and noncommissioned officers are formally introduced to these values during the pre-commissioning process at West Point, Officer Candidate School or Reserve Officer Training Corps, and in all levels of NCO schooling, from PLDC through Sergeants Major Academy. Frequently new lieutenants and sergeants arrive for training with varying degrees of understanding of these values as a way of life.

As junior leaders, they are expected to set the example and serve as role models for their soldiers. They lead by example in demonstrating the importance of values, as these values are clearly the bedrock of the Army.

While commanders, leaders, and managers are all individually responsible and accountable for soldier safety, protecting the force with emphasis on Army values requires a team effort. Soldiers at all levels must understand the relevance of adhering to values at all times.

A unit must always do what is right and report all incidents/accidents—even if the unit gets a black mark against them. To illustrate this



point: Recently, a maintenance error caused a minor AMV accident. The unit failed to investigate and report the accident because it would reflect against their zero accidents record. Subsequently, this maintenance error was repeated and caused the same malfunction to another AMV only a few days later; this time it resulted in a fatal accident. This accident should have been initially investigated and reported. As a result, this lesson learned was no "value" to anyone, especially the misfortunate soldier that lost his life.

The Army requires that accidents be reported for a number of reasons. But the most important one is the gathering of information to help prevent future accidents. Safety personnel at all levels attempt to analyze accident report information to identify problems so they can develop countermeasures that will eliminate them. *Countermeasure* is focused on getting the word out and will continue to provide all available safety information to you.

We must all do our part to help make the Army as safe as it can be. We must continue to emphasize the Army's values to ensure that each of our missions is carried out in a safe and professional manner. ♦

—BG Burt S. Tackaberry, CG, Army Safety Center

A word from the SMA:

"A soldier was driving his vehicle southbound on a highway with two other soldiers from his unit. For unknown reasons, he ran off the road and struck a bridge rail. No one was wearing seatbelts. The driver was ejected from the vehicle and sustained massive injuries. The second soldier was transported to a local hospital where he was pronounced dead. The third soldier was admitted with internal injuries and is presently in critical condition. Next of kin notification has not been completed."

How many times has this happened at your post? I can tell you, it is happening too often in our Army.

In the peacetime Army, the number one enemy killing our soldiers is privately owned vehicle (POV) accidents. Since the beginning of this fiscal year, there has been a significant increase in POV deaths. Do you realize that every three days, one of our soldiers dies in a POV accident? This really bothers me.

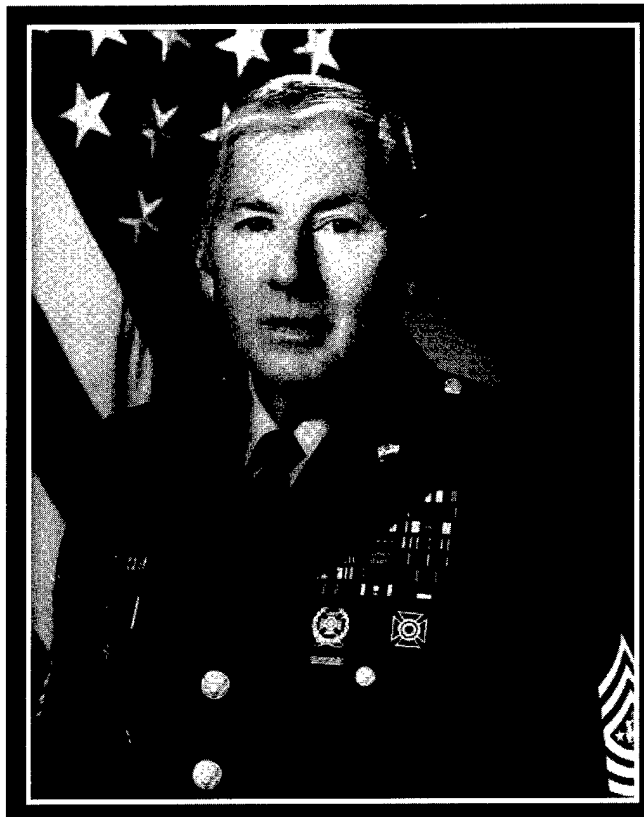
The reason this bothers me is that the same common mistakes are happening over and over again. Driving too fast for road conditions, fatigue, and simple carelessness account for the greatest number of accidents. We, as NCOs, have to get involved. How? Seatbelt usage is critical. Many of these fatalities could have been prevented if the vehicle occupants had been wearing their seatbelts. It has been proven that seatbelts do save lives. They are also mandatory on all installations, but we still have soldiers who fail to comply with regulations.

Army regulations require that seatbelts be used by all drivers and passengers in vehicles on military installations, and by soldiers on and off post, on and off duty. Seatbelt usage is not an option; it is the standard.

Remember you, our soldiers, are our most precious resource. Protect yourself from this killer, our number-one peacetime enemy. Buckle up, slow down, obey the law, and don't do stupid things.

I also want to take this opportunity and this forum to challenge the NCO Corps. I challenge you, the noncommissioned leaders of our Army, to get involved and help your commanders to reverse the tragic upward trend of POV accidents and fatalities. Take care of your soldiers. You affect their actions, both on and off duty. You can make a difference by knowing your soldiers and their current situations. For example:

- Identify soldiers who are returning from a major exercise or preparing to go on a major deployment.



- Identify high-risk soldiers, such as habitual traffic offenders, known alcohol or drug abusers, and personnel with disciplinary or attitude problems.

- Identify soldiers with financial problems, family problems, job-related stress, and fatigue.

- Identify soldiers planning to drive on a long trip over a 3- or 4-day weekend.

These are just a few of the factors that can help determine appropriate risk management controls to reduce the chances that one of your soldiers will be injured or killed in a POV accident. Train safety! Train soldiers to be careful and to use the risk management process both on and off duty. Then, ensure you enforce the standards.

We, the NCO Corps, can—and must—make a difference! ♦

—SMA Robert E. Hall

A matter of fact—train drivers to standard

To keep the Army rolling, leaders need to train qualified soldiers to standard and supervise to enforce performance to that standard.

Soldiers continue to be injured and killed because of inadequate driver's training. They are not instructed in the proper methods to drive an Army motor vehicle (wheeled & tracked) safely in all of the conditions that the vehicle can be expected to operate. Some of these soldiers may know how to drive in the civilian world and are probably fairly good drivers, as long as they are on controlled, well-paved,

and properly marked highways.

Advanced individual training (AIT) only familiarizes soldiers with various types of vehicles. They get their learner's permit after they arrive at their unit for the type of vehicle they will be expected to operate. All too often, leaders believe that driving an Army motor vehicle is no big deal, that anyone can do it, no matter what sort of training he or she has or hasn't had. Such an assumption can be deadly.

The result is a group of young, hard-charging soldiers, right out of AIT, assigned to their first Army vehicle and told to "get 'em ready."

First mistake! The supervisor or section leader assumes his new drivers are up to par on every aspect of their vehicle; why of course, they are school trained. Wrong again!

Sure, these soldiers have had some familiarization training, but this is only limited exposure to the vehicle's specific capabilities.

The unit needs to develop a well-structured, well-defined training program that incorporates the standards laid out in TC 21-305, Wheeled

Build a strong driver training program. We owe it to our soldiers to give them the best driver training that's possible and to put the best driver behind the wheel of Army vehicles. **By-the-Book Training Saves Lives!**

Vehicles Driver's Training Program. That's where a battalion training officer or battalion S3 comes in and identifies the resources for such a program.

Too often the unit commander is told "train your drivers, but do it during motor stables." Wrong again!

AR 600-55, The Army Driver and Operator Standardization Program, requires that the training program not be delegated below the battalion level. It requires the battalion to set up a comprehensive driver training program to follow very specific tasks, conditions, and standards that have been developed in the TC 21-305 series. These manuals cover every facet of training from the proper maintenance procedures, driving in all types of weather and over all types of terrain, towing procedures, and emergency procedures. There is a program for each vehicle that the Army has.

FM 21-17, Driver Selection Training and Supervision Track Combat Vehicles, offers a concise, well-thought-out sequence of training along with excellent examples of a viable training program that can be conducted at the battalion or squadron level. FM 21-305, Manual for the Wheeled Vehicle Driver, offers the same basic information. By combining the format from FM 21-17 with that of FM 21-305, a viable training program and training circulars for tracked vehicle drivers can be developed. The TC 21-306 series is currently in development. These series of TCs will do for tracked vehicle training what the TC 21-305 series do for wheeled vehicles.

All this sounds good so far, but it still has to be implemented, carried out, and most importantly, tested and followed up.

A battalion-level driver training program is the only way to carry out such a plan. Battalion commanders should gather senior experience in the unit and develop a challenging program that gives driver training the importance it justly deserves.

Identify time, training areas, and specific levels of accomplishment before soldiers are issued a driver's license. Give this program the highest visibility and develop it into a major training objective. Recognize these individuals by developing a driver's award program within the battalion to signify their importance to the team effort. These drivers will be handling highly sophisticated and expensive Army equipment that will require a much higher degree of training than has been administered in the past.

For too long, the Army driver has been left to his own devices and has managed to do a good job. But given that extra measure of specialized training, that extra recognition of additional skills, and the confidence that he is well-trained in all phases of combat driving will do more for this Army's combat readiness posture than any other endeavor.

It's time to put the emphasis on driver's training and regard these soldiers as being the key to the successful deployment of our units in combat. Let's raise the standards of training, enforce those standards to what you would want them to be if your life depended on it.

—BECAUSE IT DOES!

**All too
often,
leaders
believe that
driving an
Army motor
vehicle is
no big deal.
They think
anyone can
do it, no
matter what
training he
or she has
or hasn't
had. Such
an
assumption
can be
DEADLY.**

Inexperience kills!

Soldiers shouldn't get hurt or killed while learning to do their jobs!

The unit moved out from the motor pool to the designated local training area (LTA). Prior to movement, drivers' licenses were checked for those driving in the convoy and a safety briefing was given. Once in the LTA, the standard safety briefing was given and training began. The accident vehicle's driver first went to the HMMWV station and received a block of instruction on the HMMWV and its characteristics. She felt comfortable with this vehicle because it was similar to her privately owned vehicle (POV), in which she was a licensed and experienced driver. The driver's supervisor rode in the back of the HMMWV to observe her performance. After having successfully driven the HMMWV, the driver went to the 5-ton station, but it had a backlog so she went to the M577 Carrier, command

post station. Her supervisor elected to give the M577 instruction instead of the designated instructor.

The supervisor put the soldier in the driver's seat of the M577, engine running, and gave a quick block of instruction on operation of the laterals, gas pedal, shift lever, and location of the gauges. They then proceeded on a course road going between 5-10 mph with no apparent signs of difficulty. After completion of the second lap, the supervisor then had the driver increase her speed to 15-20 mph. Without warning, the driver oversteered and lost control of the track and ran into a 12-inch diameter tree which fell on the track commander (TC), breaking his neck. The driver immediately went for help. The first personnel on the scene shut the track off, checked for vital signs, which

there were none, and started cardio-vascular pulmonary resuscitation (CPR). The designated combat lifesaver arrived at the scene and took charge of the victim. Approximately 15 minutes later, someone was sent to the nearest phone to call for an ambulance.



The inexperienced driver of this M577 lost control of the track and ran into a tree. The tree fell on the track commander resulting in fatal injuries.

Time passed and the command decided to move the soldier from the back of the M577. The ramp could not be lowered because of the tree leaning against it, so the soldier was taken out the troop door without the proper medical support, such as a C-collar or backboard. The patient was loaded into a HMMWV and taken to a hospital in the town that the unit was from, when in fact the closest town was in the other direction. After transporting the soldier to the hospital, the ambulance with the emergency physician finally arrived at the accident scene.

Murphy's Law: Anything that can go wrong, will go wrong. And it did!

There were several vital errors committed by the unit and its leaders during the unit training exercise. This particular driver did not have the applicable learner's permit as required

by AR 600-55 for the M577 and the supervisor should have let a qualified instructor ride with the student because of her inexperience. Other factors that contributed to the death of this soldier were: the chain of command did not occupy the LTA in accordance with their LTA SOP; they had no communication set up, no litter for transport of personnel, no combat lifesaver certified by the first 05 in the chain of command, and no dedicated marked vehicle for evacuation. In addition, the unit did not have tasks, conditions, or standards outlined for this training event or a formal risk assessment completed by the chain of command.

Driver's training sounds routine, but as you have read, it is filled with Murphy's Law, which in this case claimed a soldier's life.

POC: LTC Pete Simmons, Chief, Ground Systems Division, DSN 558-2926 (334-255-2926), simmons@safty-emh1.army.mil

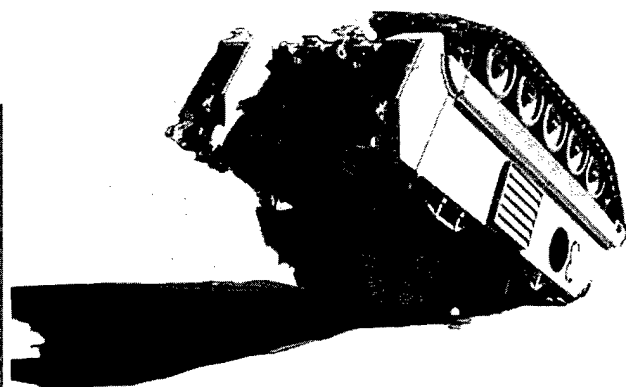
Shortcut costly

Lowered standard kills one soldier and injures another

The track commander (TC) was killed when he was thrown from his M577 after it went out of control and rolled over an embankment. The unit was short of drivers for the night convoy movement, so the squad leader and TC licensed an untrained driver to operate the M577. The track had fallen behind in the convoy, and the inexperienced driver lost control while trying to change gears. The track veered off the road and went up an embankment before rolling over and coming to rest upside down on top of the TC.

Standards. We know the standards in most cases. It's when we accept less than the standard or fail to enforce the standard that our soldiers get hurt or killed. Knowing and enforcing the standards could have made a difference.

As leaders, we need to ensure that drivers are properly trained to standard on all skills required to perform the mission.



Ensure drivers know and practice the following:

- Keep attention on driving. Don't take eyes off the road.
- Keep speed moderate and appropriate for road and weather conditions and visibility.
- Limit the need for brakes. Start slowing down well in advance of curves, intersections, or stopped traffic.
- Steer evenly and methodically.

Two leaders lowered the standards. One paid for it with his life. ♦

Live-fire accidents

The firing line is NOT clear!

A task force was conducting a company/team (CO/TM) combined arms live-fire exercise (CALFEX). The purpose of the exercise was to conduct CO/TM combat operations requiring a high degree of fire power, mobility, and shock effect. This was to be the ultimate test in training and performance during combat missions in a realistic live-fire environment. The force was task organized of eight CO/TMs, consisting of four tank heavy teams and four mechanized infantry heavy teams.

One company mission was to conduct a deliberate attack to seize an objective and protect the task force right flank as the task force attacked forward. This company consisted of two infantry platoons and one tank platoon that was the maneuver element.

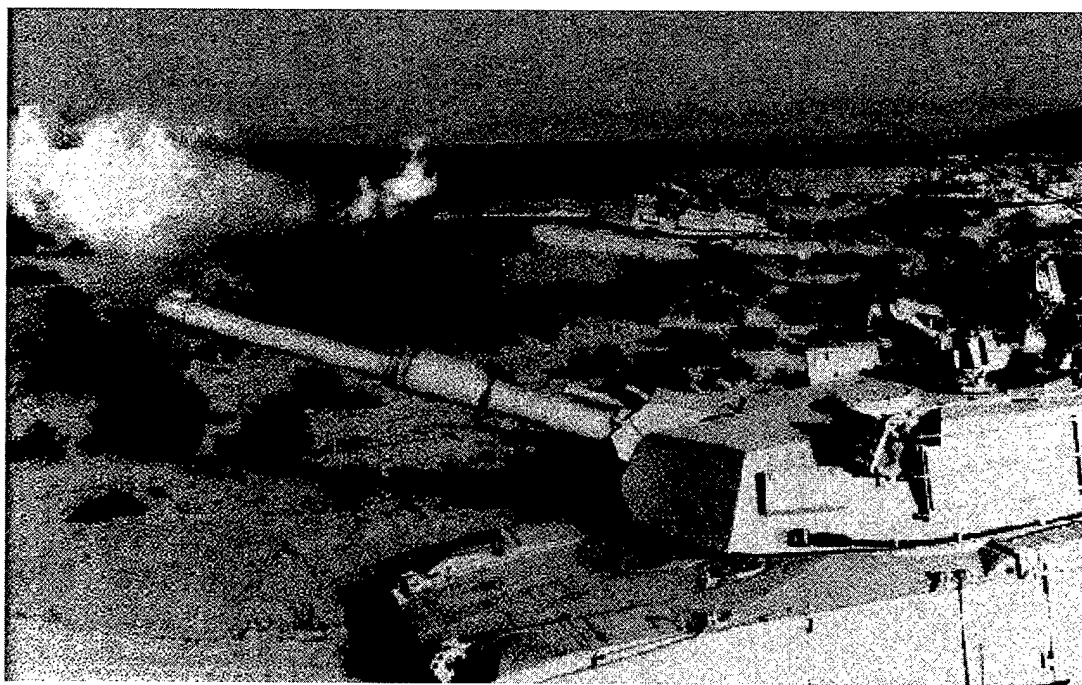
A section of the tank platoon reached its predesignated firing positions and began to lay fire on targets to the left of the objective. Meanwhile, two tracked

vehicles from one of the infantry platoons (carrying the assault element) moved across the phase line and halted in their dismount position. The assault elements dismounted their tracked vehicle and began to move toward the front of the objective. At this time, the other section of the tank platoon reached its position and also began firing on targets to the left of the objective. As the dismounted elements moved forward, there was a lull in firing; however, the tank platoon had not yet shifted their fires. The dismounted element realized that they were in the direct line of fire of the tanks just as two infantry soldiers were hit by machine gun fire. One soldier was killed and another soldier was seriously injured. The infantry platoon leader realized what was happening and ordered his radio telephone operator (RTO) to call "CEASE FIRE" immediately. Simultaneously, he threw a green smoke grenade to alert the task force of the problem. Calls went out

for emergency medical support, and the dead and injured were transported to the local hospital.

Summary

This scenario illustrates a very dramatic and senseless training accident. The company/team commander did not effectively communicate the proper use of clear signals for fire and



During a combined arms live-fire exercise, two soldiers were hit by machine gun fire, killing one and injuring the other.

control measures. This allowed his platoon leaders to begin the CALFEX with different expectations of the signals to be used for the lifting and shifting of supporting fires. As a result, the dismounted infantry ran into its own supporting fires. The company commander did not anticipate the problem of synchronizing execution of the operation order (OPORD). The infantry platoon executed their advance to the objective quicker than other elements of the company team, placing themselves in harm's way. Adequate planning did not facilitate the optimum placement of safety observers. The five safety personnel were located directly behind each of the platoons and the commander was in the control tower; therefore, they were not in a position to observe the unsafe acts or prevent the accident from happening.

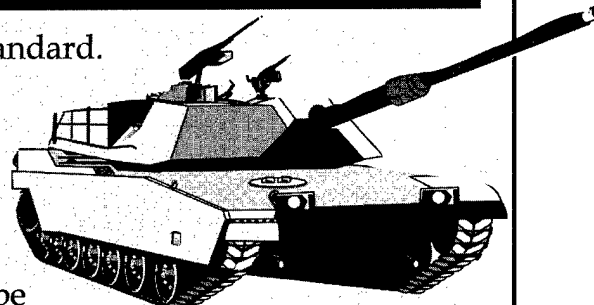
Bradley live-fire accident kills two soldiers

A Bradley company was scheduled to conduct training with the execution of Bradley Tables VIII and XII. The unit fired Range Tables VI, VII, VIII and XI with no problems encountered. At a multi-use range, each platoon separately conducted a day dry run (simulated) and a wet run (live-fire) of Table XII. At approximately 2000, a safety briefing regarding the night phase of Table XII was given. Two platoons finished the night phase of Table XII without incident. The third platoon started the

night phase of Table XII, with four M2 Bradley fighting vehicles. Personnel on board consisted of the crew and infantry personnel assigned to the mission. The platoon entered its final firing position at

Control the risk:

- Train to standard.
- Perform to standard.
- Enforce the standard.



Always be aware of your surroundings. This is important so you can protect the soldiers working around you.

Tactical situations can change rapidly – so before you pull the trigger, make sure you have positive identification. ♦



Dismounted troops were fired upon by friendly fire--three soldiers were killed and one injured.

approximately 0100. Their progress up until this point had been uneventful. The four platoon vehicles were positioned on separate berms, on line, and facing down range.

The infantry personnel dismounted and proceeded to their firing positions located about 90 degrees to the right and 100 meters in front of the platoon vehicles. The Bradleys and dismounted troops engaged targets simultaneously. The target area for the dismounted troops was illuminated by both mortar and hand-held illumination. At approximately 0110, the warning alert "GAS" was given. All Bradley crews and dismounted personnel went to MOPP Level IV. After donning their nuclear, biological, and chemical (NBC) equipment, the dismounted troops and the vehicles proceeded to engage their targets. At approximately 0115, the command "ALL CLEAR" was given to indicate the threat of gas was over. The dismounted troops, some of who were in the process of unmasking and beginning to rise to their knees, were fired upon by a machine gun from their left. There were three fatal injuries and one minor injury from gunshot wounds.

Summary. The officer in charge (OIC) failed

to properly plan the exercise. The firing units were allowed to upload the Bradley's coaxial machine guns and engage troop-type targets with their infantry personnel dismounted. The Bradley vehicle commander failed to properly monitor his turret position allowing it to traverse beyond the firing sector limits.

Analysis. Both of these live-fire accidents had two major things in common:

- ☛ Inadequate planning. Fields of fire were not planned, confirmed, or controlled.

- ☛ Failure to perform to standard. Planned tactics, techniques, and procedures were not in accordance with Army standards.

Countermeasures. Both accidents could have been prevented with a simple five-step risk management process specified in the respective planning manuals with a follow-up of meticulous, proper execution. The Army way is to train as you will fight, but not at the expense of one of your own soldiers. This means that we must train to established standards and employ the five-step risk management process at all times. ♦

POC: SFC Erwin Bailey, Armor Branch, Ground Systems Division, DSN 558-2908 (334-255-2908), baileye@safety-emh1.army.mil

Leaders should take five simple but effective steps before tackling any mission:



Safe sleeping areas

Are you sure this is the safest place to sleep?

The mission was to occupy a tactical assembly area (TAA). The First Sergeant was lining up vehicles to allow enough space to accommodate his whole company. The unit had been in the field for about 2 weeks and the TAA was set up for the soldiers and their equipment for the long convoy back to the rear. Later that evening, the 1SG dug a shallow foxhole next to his vehicle, put his cot in it, and went to sleep. Sometime during the night, a vehicle came through his position. Early the next morning, at around 0445, a soldier came to the 1SG's vehicle to wake him up, but did not get a response. The 1SG had been run over and sustained fatal injuries.

We can think of all kinds of mistakes that were possibly made by the chain of command and individuals in the unit. This accident could have been prevented if a proper sleep plan using risk management tools had been established. The 1SG was correct in sleeping beside the vehicle, but the major mistakes made were: a lack of communication on the sleep plan, no walking guard posted to keep vehicles from driving through the sleeping area, and no ground guides used for moving vehicles.

The designation of where to sleep is a commander's prerogative. That prerogative must be exercised and carries with it the responsibility for a commander to select the area or place

Soldier safety tips:

- Always use a ground guide when moving through troop areas, day or night.
- When ground guiding, always walk a safe distance in front or to the rear of the vehicle.
- Use engineer tape and flashlights or chem lights to warn drivers of sleeping areas.
- Sleep only in designated sleeping areas.
- If no sleeping area is designated, evaluate sleeping position in relation to vehicle locations and routes and ensure the chain of command knows sleeping areas. Never sleep on roads, tank trails, or under vehicles. Be aware that sleeping next to trees does not necessarily protect one from being run over.
- When ground guiding a tracked vehicle near a sleeping area, go very slowly, use a flashlight, and check behind, under, and both sides of the vehicle before moving. Always check the route plan before moving the vehicle. *Coordinate light signals with the driver before operating at night.*

Leader safety tips:

- Establish perimeters for sleeping areas and ensure all personnel use them.
- Before moving a vehicle in an assembly area, require the driver or a crewmember to walk around the vehicle to ensure no one is in danger.
- Require ground guides for all vehicles operating with areas occupied by dismounted personnel.
- Establish manned dismount points at entrances to assembly and bivouac areas and restrict movement of vehicles in such areas during hours of darkness.
- Ensure that ground guides use NVGs when appropriate.
- Within tactical positions, ensure at least one walking guard is posted.
- Soldiers should never be allowed to sleep in front, behind, or under vehicles.
- Ensure that vehicles are not parked where they can roll towards sleeping personnel or on an incline without chocks.

that presents the least hazard to the soldier commensurate with the mission. The safety and welfare of soldiers are the responsibility of the commander.

The first level supervisor is, therefore, responsible to ensure that the commander's guidance is followed. That means the squad leader, platoon sergeant, platoon leader, or whoever is the immediate supervisor of a soldier checks to see if his or her soldiers are sleeping in a safe place and the bivouac location is briefed to

all soldiers in the area.

Every soldier has to sleep, sometime and someplace. When the mission allows the time for sleep, whether that is at 0200, 0600, or 1400 and whether it is for 1 hour or for 8 hours—sleep in an area designated by the commander and where the least hazard exits.

POC: SFC Clarence Welch, Field Artillery,
Ground Systems Division, U.S. Army Safety
Center, DSN 558-3421 (334-255-3421),
welchc@safety-emh1.army.mil

Make connections with new telephone numbers:

A recent realignment within the Safety Center has changed many of our telephone numbers. You can reach ground sections as follows, DSN is 558-xxxx and commercial is 334-255-xxxx:

Chief, Ground Section: LTC Pete Simmons, x2926

Wheeled Vehicles/Weapons: MAJ Julian Simerly, x9525

Heavy Tracked Vehicles: MAJ Monroe Harden, x2919; MAJ Jeffrey Brill, x2913; SFC Erwin Bailey, x2908

Light Tracked Vehicles/Field Artillery: CPT(P) Gary Kotouch, x2933; SFC Clarence Welch, x3421

Infantry: MSG Ernest Dobereiner, x2892; SSG Michael Williams, x2959

Airborne: CPT(P) Gary Kotouch, x2933; SFC Clarence Welch, x3421; SSG Michael Williams, x2959

Ordnance: CW3 Gerald Cross, x2966; MSG Peggy Adams, x3575

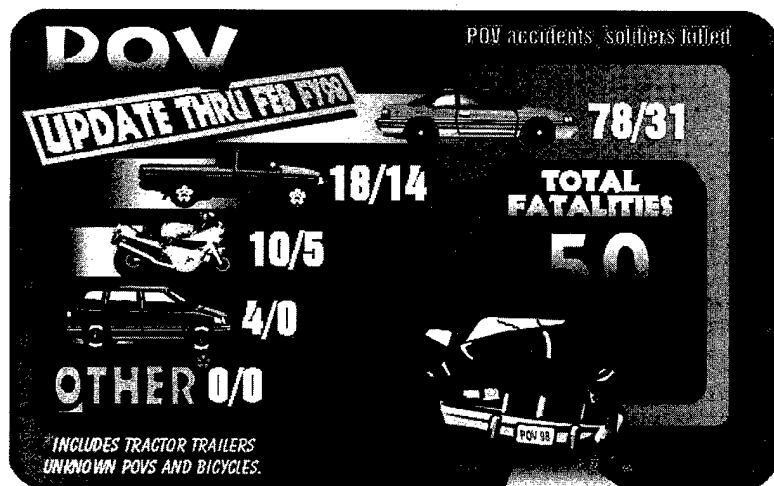
Engineer: SFC Charles Olsen, x3034

Chemical: SFC Charlotte Underwood, x3530

Safety Engineer: Mr. Don Wren, x1122

Safety Manager: Mr. George Greenauer, x3261

Countermeasure Writer-Editor: Ms. Paula Allman, x2688



Countermeasure is published by the U.S. Army Safety Center, Fort Rucker, AL 36362-5363. Information is for accident prevention purposes only and is specifically prohibited for use for punitive purposes or matters of liability, litigation, or competition. Address questions about content to DSN 558-2688 (334-255-2688). To submit information for publication, use Fax DSN 558-9528 (Ms. Paula Allman) or e-mail countermeasure@safety-emh1.army.mil Address questions about distribution to DSN 558-2062 (334-255-2062). Visit our website at <http://safety.army.mil>

Burt S. Tackaberry
Brigadier General, U. S. Army
Commanding Officer